Recovery Plan Action Status

Plan Name: Spalding's Catchfly Final Recovery Plan

Plan Status: Final Plan Date: 12-Oct-07 Lead Agency: USFWS

Lead Office Idaho Fish And Wildlife Office 378-5243)

Species	Action Priority #	Action #	Action Description	Action Status	Est. Initiation Date	Est. Completion Date	Responsible Parties	Work Type	Labor Type	Action Comments
Spalding's Catchfly (Silene spaldingii)	1	1.1.1	Conserve and work to enhance the four Silene spaldingii populations within the Blue Mountain Basins identified here as potential key conservation areas.	Ongoing Current	FY 2007		Soil and Water Conservation Districts, Universities or Colleges, Natural Resource Conservation Service, Old Chief Joseph Gravesite, Nez Perce National Historical Park, Wallowa-Whitman National Forest, Zumwalt Prairie Preserve, The Nature Conservancy, Private Landowners, U.S. Fish and Wildlife Service	Other	Labor type not yet selected	This action and associated costs will be completed through Action 2.2 below.
Spalding's Catchfly (Silene spaldingii)	2	1.1.2	Conduct further surveys to identify, or work to create, at least one new population and key conservation area within the Blue Mountain Basins with over 500 individuals.	Partially Complete	FY 2007		Soil and Water Conservation Districts, Universities or Colleges, Natural Resource Conservation Service, Old Chief Joseph Gravesite, Nez Perce National Historical Park, Vale District, U.S. Bureau of Land Management, Wallowa-Whitman National Forest, Zumwalt Prairie Preserve, The Nature Conservancy, Private Landowners, U.S. Fish and Wildlife Service	Research: Population Surveys	Contract	This action and associated costs completed through Actions 2.3.1.5, 2.3.2.2.1, 2.5.2 (and sub-actions), 2.6 (and sub-actions), 2.7 (and sub-actions).

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Spalding's Catchfly (Silene spaldingii)	3	1.1.3	Conserve and protect smaller populations within the Blue Mountain Basins.	Ongoing Current	FY 2007		Soil and Water Conservation Districts, Universities or Colleges, Natural Resource Conservation Service, Old Chief Joseph Gravesite, Nez Perce National Historical Park, Vale District, U.S. Bureau of Land Management, Wallowa-Whitman National Forest, Zumwalt Prairie Preserve, The Nature Conservancy, Private Landowners, U.S. Fish and Wildlife Service	Other	Labor type not yet selected	Costs included in other actions listed
Spalding's Catchfly (Silene spaldingii)	1	1.1.4	Control and manage invasive nonnative plant species specific to the Blue Mountain Basins.	Ongoing Current	FY 2007		Old Chief Joseph Gravesite, Nez Perce National Historical Park, Vale District, U.S. Bureau of Land Management, Wallowa-Whitman National Forest, Weed Management Areas, Zumwalt Prairie Preserve, The Nature Conservancy, Private Landowners, U.S. Fish and Wildlife Service	Management: Predator and Competitor Control	Labor type not yet selected	See sub-actions for 2.3.1.

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Spalding's Catchfly (Silene spaldingii)	1	1.2.1	Conserve, identify, and work to enhance the five Silene spaldingii populations within the Canyon Grasslands identified here as potential key conservation areas.	Ongoing Current	FY 2007		Nez Perce Tribe, Universities or Colleges, Cottonwood Field Office, U.S. Bureau of Land Management, Craig Mountain Wildlife Management Area, Idaho Dept of Fish and Game, Garden Creek Ranch, The Nature Conservancy, Umatilla National Forest, Wallowa- Whitman National Forest, U.S. Fish and Wildlife Service	Other	Labor type not yet selected	This action and associated costs will be completed through Action 2.2 below.
Spalding's Catchfly (Silene spaldingii)	2	1.2.2	Conduct further surveys to identify at least two new populations and potential key conservation areas within the Canyon Grasslands with over 500 individuals.	Partially Complete	FY 2007		Idaho Department of Lands, Nez Perce Tribe, Universities or Colleges, Cottonwood Field Office, U.S. Bureau of Land Management, Craig Mountain Wildlife Management Area, Idaho Dept of Fish and Game, Garden Creek Ranch, The Nature Conservancy, Spokene District, U.S. Bureau of Land Management Agencies, Umatilla National Forest, Vale District, U.S. Bureau of Land Management, Wallowa-Whitman National Forest, Private Landowners, U.S. Fish and Wildlife Service	Research: Population Surveys	Labor type not yet selected	This action and associated costs completed through Actions 2.3.1.5, 2.3.2.2.1, 2.5.2 (and sub-actions), 2.6 (and sub-actions), 2.7 (and sub-actions).

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Spalding's Catchfly (Silene spaldingii)	3	1.2.3	Conserve and protect smaller populations within the Canyon Grasslands.	Ongoing Current	FY 2007		Idaho Department of Lands, Nez Perce Tribe, Universities or Colleges, Cottonwood Field Office, U.S. Bureau of Land Management, Craig Mountain Wildlife Management Area, Idaho Dept of Fish and Game, Garden Creek Ranch, The Nature Conservancy, Spokene District, U.S. Bureau of Land Management, State Land Management Agencies, Umatilla National Forest, Vale District, U.S. Bureau of Land Management, Wallowa-Whitman National Forest, Private Landowners, U.S. Fish and Wildlife Service	Other	Labor type not yet selected	Costs included in other actions listed
Spalding's Catchfly (Silene spaldingii)	1	1.2.4	Control and manage invasive nonnative plant species specific to the Canyon Grasslands.	Ongoing Current	FY 2007		Nez Perce Tribe, Cottonwood Field Office, U.S. Bureau of Land Management, Craig Mountain Wildlife Management Area, Idaho Dept of Fish and Game, Garden Creek Ranch, The Nature Conservancy, State Land Management Agencies, Umatilla National Forest, Wallowa-Whitman National Forest, Weed Management Areas, Private Landowners, U.S. Fish and Wildlife Service	Management: Predator and Competitor Control	Labor type not yet selected	See sub-actions for 2.3.1. Nez Perce NF treated weeds at Center Ridge population (2009 and 2010).

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Spalding's Catchfly (Silene spaldingii)	1	1.3.1	Conserve, survey, and work to enhance seven Silene spaldingii populations within the Channeled Scablands identified here as potential key conservation areas.	Ongoing Current	FY 2007		Soil and Water Conservation Districts, Natural Resource Conservation Service, Spokene District, U.S. Bureau of Land Management, Swanson Lakes Wildlife Area, Washington Department of Fish and Wildlife, Private Landowners, U.S. Fish and Wildlife Service	Other	Labor type not yet selected	This action and associated costs will be completed through Action 2.2 below.
Spalding's Catchfly (Silene spaldingii)	2	1.3.2	Conduct further surveys to identify, or work to create, at least one new population and key conservation area within the Channeled Scablands with over 500 individuals.	Partially Complete	FY 2007		Fairchild Air Force Base, Spokene District, U.S. Bureau of Land Management, Swanson Lakes Wildlife Area, Washington Department of Fish and Wildlife, Turnbull National Wildlife Refuge, Weed Management Areas, Private Landowners, U.S. Fish and Wildlife Service	Research: Population Surveys	Labor type not yet selected	This action and associated costs completed through Actions 2.3.1.5, 2.3.2.2.1, 2.5.2 (and sub-actions), 2.6 (and sub-actions), 2.7 (and sub-actions).
Spalding's Catchfly (Silene spaldingii)	3	1.3.3	Conserve and protect smaller populations within the Channeled Scablands.	Ongoing Current	FY 2007		Fairchild Air Force Base, Spokene District, U.S. Bureau of Land Management, Swanson Lakes Wildlife Area, Washington Department of Fish and Wildlife, Turnbull National Wildlife Refuge, Weed Management Areas, Private Landowners, U.S. Fish and Wildlife Service	Other	Labor type not yet selected	Costs included in other actions listed

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Spalding's Catchfly (Silene spaldingii)	1	1.3.4	Control and manage invasive nonnative plant species specific to the Channeled Scablands.	Ongoing Current	FY 2007		Fairchild Air Force Base, Spokene District, U.S. Bureau of Land Management, Swanson Lakes Wildlife Area, Washington Department of Fish and Wildlife, Turnbull National Wildlife Refuge, Weed Management Areas, Private Landowners, U.S. Fish and Wildlife Service	Management: Predator and Competitor Control	Internal Technical Assistance	See sub-actions for 2.3.1. Upper Columbia FO conducted species survey on Fairchild AFB prior to implementation of invasive plant control measures.
Spalding's Catchfly (Silene spaldingii)	1	1.4.1	Conserve and work to enhance three Silene spaldingii populations within the Intermontane Valleys identified here as potential key conservation areas.	Ongoing Current	FY 2007		Confederated Salish and Koonetai Tribes, Universities or Colleges, Dancing Prairie Preserve, The Nature Conservancy, Lost Trail National Wildlife Refuge, State Land Management Agencies, Wild Horse Island State Park, Montana Fish, Wildlife, and Parks, Private Landowners, U.S. Fish and Wildlife Service	Other	Labor type not yet selected	This action and associated costs will be completed through Action 2.2 below.
Spalding's Catchfly (Silene spaldingii)	1	1.4.2	Conduct further surveys or work to supplement existing populations within the Intermontane Valleys to achieve at least one additional potential key conservation areas with over 500 individuals.	Ongoing Current	FY 2007		Confederated Salish and Koonetai Tribes, Soil and Water Conservation Districts, U.S. Forest Service, Universities or Colleges, Natural Resource Conservation Service, Lost Trail National Wildlife Refuge, Montana State Trust Lands, State Land Management Agencies, Private Landowners, U.S. Fish and Wildlife Service	Other	Labor type not yet selected	This action and associated costs completed through Actions 2.3.1.5, 2.3.2.2.1, 2.5.2 (and sub-actions), 2.6 (and sub-actions), 2.7 (and sub-actions).

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Spalding's Catchfly (Silene spaldingii)	2	1.4.2	Conduct further surveys or work to supplement existing populations within the Intermontane Valleys to achieve two additional potential key conservation areas with over 500 individuals.	Partially Complete	FY 2007		Confederated Salish and Koonetai Tribes, Soil and Water Conservation Districts, U.S. Forest Service, Universities or Colleges, Natural Resource Conservation Service, Lost Trail National Wildlife Refuge, Montana State Trust Lands, State Land Management Agencies, Private Landowners, U.S. Fish and Wildlife Service	Research: Population Surveys	Labor type not yet selected	This action and associated costs completed through Actions 2.3.1.5, 2.3.2.2.1, 2.5.2 (and sub-actions), 2.6 (and sub-actions), 2.7 (and sub-actions).
Spalding's Catchfly (Silene spaldingii)	3	1.4.3	Conserve and protect smaller populations within the Intermontane Valleys.	Ongoing Current	FY 2007		Confederated Salish and Koonetai Tribes, Soil and Water Conservation Districts, U.S. Forest Service, Universities or Colleges, Natural Resource Conservation Service, Lost Trail National Wildlife Refuge, Montana State Trust Lands, State Land Management Agencies, Private Landowners, U.S. Fish and Wildlife Service	Other	Labor type not yet selected	Costs included in other actions listed

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Spalding's Catchfly (Silene spaldingii)	1	1.4.4	Control and manage invasive nonnative plant species specific to the Intermontane Valleys.	Ongoing Current	FY 2007		Confederated Salish and Koonetai Tribes, U.S. Forest Service, Dancing Prairie Preserve, The Nature Conservancy, Lost Trail National Wildlife Refuge, Montana State Trust Lands, State Land Management Agencies, Weed Management Areas, Wild Horse Island State Park, Montana Fish, Wildlife, and Parks, Private Landowners, U.S. Fish and Wildlife Service	Management: Predator and Competitor Control	Labor type not yet selected	See sub-actions for 2.3.1.
Spalding's Catchfly (Silene spaldingii)	1	1.5.1	Conserve and work to enhance the three Silene spaldingii populations within the Palouse Grasslands identified here as potential key conservation areas.	Ongoing Current	FY 2007		Washington State University, Soil and Water Conservation Districts, Nez Perce Tribe, Universities or Colleges, Natural Resource Conservation Service, Private Landowners, U.S. Fish and Wildlife Service	Other	Labor type not yet selected	This action and associated costs will be completed through Action 2.2 below.

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Spalding's Catchfly (Silene spaldingii)	3	1.5.2	Conduct a study identifying intact habitat within the Palouse Grasslands where Silene spaldingii may occur and follow with surveys for the plant.	Ongoing Current	FY 2007		Washington State University, Nez Perce Tribe, Universities or Colleges, Cottonwood Field Office, U.S. Bureau of Land Management, Spokene District, U.S. Bureau of Land Management, State Land Management Agencies, Private Landowners, U.S. Fish and Wildlife Service	Research: Ecosystem Studies	Contract	In 2007, a multi- year, 3 phase project in Latah Co. (through IDFG) was initiated to conserve Palouse Prairie remnants. During Phase 1, Palouse remnants were documented usng aerial imagery and digitized into a GIS layer with ownership information. Phase 2 consisted of landowner education and contact. Phase 3, which is currently ongoing, involves conducting site visits to assess the condition of the remnants. The primary goal is to then work with private landowners to develop conservation strategies for their Palouse remnants.
Spalding's Catchfly (Silene spaldingii)	1	1.5.3	Supplement existing populations and conduct a restoration and reintroduction program within the Palouse Grasslands to achieve the goal of three key conservation areas of Silene spaldingii with over 500 individuals.	Ongoing Current	FY 2007		Washington State University, Soil and Water Conservation Districts, Universities or Colleges, Natural Resource Conservation Service, Cottonwood Field Office, U.S. Bureau of Land Management, Spokene District, U.S. Bureau of Land Management, State Land Management Agencies, Private Landowners, U.S. Fish and Wildlife Service	Research: Reintroduction	Labor type not yet selected	See subactions of Action 2.5.2 below.

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Spalding's Catchfly (Silene spaldingii)	3	1.5.4	Conserve and protect smaller populations within the Palouse grasslands.	Ongoing Current	FY 2007		Washington State University, Cottonwood Field Office, U.S. Bureau of Land Management, Spokene District, U.S. Bureau of Land Management, State Land Management Agencies, Weed Management Areas, Private Landowners, U.S. Fish and Wildlife Service	Other	Labor type not yet selected	Costs included in other actions listed
Spalding's Catchfly (Silene spaldingii)	1	1.5.5	Control and manage invasive nonnative plant species specific to the Palouse Grasslands.	Ongoing Current	FY 2007		Washington State University, Cottonwood Field Office, U.S. Bureau of Land Management, Spokene District, U.S. Bureau of Land Management, State Land Management Agencies, Weed Management Areas, Private Landowners, U.S. Fish and Wildlife Service	Management: Predator and Competitor Control	Labor type not yet selected	See sub-actions of 2.3.1.
Spalding's Catchfly (Silene spaldingii)	1	2.1	Secure funding for implementation or recovery tasks.	Ongoing Current	FY 2007		All parties	Management: Habitat Maintenance and Manipulation	Internal Technical Assistance	Costs included in other actions listed. Biologists are working with WDFW on their grazing plan for the Blue Mountains Wildlife Mgmt Area to avoid/minimize adverse effect to Silene.

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Spalding's Catchfly (Silene spaldingii)	3	2.1	Revise and implement general management plans to include Silene spaldingii where the species resides.	Ongoing Current	FY 2007		Tribal governments, U.S. Forest Service, Universities or Colleges, Fairchild Air Force Base, Old Chief Joseph Gravesite, Nez Perce National Historical Park, State Land Management Agencies, The Nature Conservancy, U.S. Fish and Wildlife Service, Bureau of Land Management	Management: Planning	Labor type not yet selected	As plans are revised. \$5K for each general management plan at 20 different State, Federal, Tribal, and TNC managed areas. The Forest Service (WWNF) is including standards for rare and federally listed threatened, endangered and proposed plant species in its Forest Plan revision (still in progress as of 2010).
Spalding's Catchfly (Silene spaldingii)	3	2.11	Validate and revise recovery objectives.	Not Started			All parties, U.S. Fish and Wildlife Service	Management: Planning	Labor type not yet selected	\$25K every 5 years (seven times total)
Spalding's Catchfly (Silene spaldingii)	3	2.12	Convene annual meetings of the Silene spaldingii technical team.	Ongoing Current	FY 2007		U.S. Fish and Wildlife Service	Management: Planning	Labor type not yet selected	2011 Tech Team Meeting held on April 20, 2011 in Spokane, WA.

(Silene spaldingili) spaldingili specific habitat management plans at all likey conservation areas. University, Confederated Salish and Konetal Tribes, Nez Perce Tribe, Cottorwood Field Office, U.S. Bureau of Land Management, Craig Mountain Wildlife Management, Craig Mountain Wildlife Management, Salish and Salish a	Species	Action Priority #	Action #	Action Description	Action Status	Est. Initiation Date	Est. Completion Date	Responsible Parties	Work Type	Labor Type	Action Comments
Whitman National Forest, Wild Horse Island State Park, Montana Fish, Wildland Parks, Zumwalt Prairie Preserve, The Nature Conservancy, Private Landowners, U.S. Fish and Wildlife	Spalding's Catchfly (Silene spaldingii)	1	2.2	spaldingii specific habitat management plans at all key	Ongoing Current	FY 2007		University, Confederated Salish and Koonetai Tribes, Nez Perce Tribe, Cottonwood Field Office, U.S. Bureau of Land Management, Craig Mountain Wildlife Management Area, Idaho Dept of Fish and Game, Dancing Prairie Preserve, The Nature Conservancy, Garden Creek Ranch, The Nature Conservancy, Lost Trail National Wildlife Refuge, Old Chief Joseph Gravesite, Nez Perce National Historical Park, Spokene District, U.S. Bureau of Land Management, Swanson Lakes Wildlife Area, Washington Department of Fish and Wildlife, Umatilla National Forest, Wallowa- Whitman National Forest, Wild Horse Island State Park, Montana Fish, Wildlife, and Parks, Zumwalt Prairie Preserve, The Nature Conservancy, Private Landowners, U.S.	Planning		conservation areas plus an additional

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Spalding's Catchfly (Silene spaldingii)	3	2.3.1.1	Incorporate integrated pest management programs into habitat management plans for Silene spaldingii at all key conservation areas and other areas as needed.	Not Started			Washington State University, Confederated Salish and Koonetai Tribes, Nez Perce Tribe, U.S. Fish and Wildlife Service, Private landowners, Cottonwood Field Office, U.S. Bureau of Land Management, Craig Mountain Wildlife Management Area, Idaho Dept of Fish and Game, Dancing Prairie Preserve, The Nature Conservancy, Garden Creek Ranch, The Nature Conservancy, Lost Trail National Wildlife Refuge, Old Chief Joseph Gravesite, Nez Perce National Historical Park, Spokene District, U.S. Bureau of Land Management, Swanson Lakes Wildlife Area, Washington Department of Fish and Wildlife, Umatilla National Forest, Wallowa-Whitman National Forest, Wild Horse Island State Park, Montana Fish, Wildlife, and Parks, Zumwalt Prairie Preserve, The Nature Conservancy	Management: Predator and Competitor Control	Labor type not yet selected	Cost included in Action 2.2.

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Spalding's Catchfly (Silene spaldingii)	1	2.3.1.2	Conduct invasive nonnative plant control and management measures at all key conservation areas and other populations as needed.	Ongoing Current	FY 2007		All parties	Management: Predator and Competitor Control	Contract	See Actions 1.1.4, 1.2.4, 1.3.4, 1.4.4, and 1.5.5. Spokane provided 14,490 to map Silene populations on the Kramer Palouse Natural Area inprep for treating the area for nonnative invasive species. They will also propose to develop a monitoring protocol to measure population dynamics and effect of control actions.
Spalding's Catchfly (Silene spaldingii)	3	2.3.1.3	Ensure invasive nonnative plant control and management measures are coordinated with appropriate agencies.	Ongoing Current	FY 2007		All parties	Management: Habitat Maintenance and Manipulation	Labor type not yet selected	Cost included in Actions 1.1.3, 1.2.3, 1.3.2, 1.4.3, and 1.5.4.
Spalding's Catchfly (Silene spaldingii)	3	2.3.1.4	Conduct outreach activities for individuals or organizations that are involved in controlling and managing invasive nonnative plants.	Not Started			All parties, U.S. Fish and Wildlife Service	Management: Habitat Maintenance and Manipulation	Labor type not yet selected	Total cost based upon the 35 years until the first possible recovery date.
Spalding's Catchfly (Silene spaldingii)	2	2.3.1.5	Conduct surveys for Silene spaldingii before invasive nonnative plant control measures are implemented.	Partially Complete	FY 2007		All parties	Research: Population Surveys	Labor type not yet selected	\$3K for six different surveys (1000 acres [405 hectares]) each year across all land managers.
Spalding's Catchfly (Silene spaldingii)	2	2.3.1.6.1	Develop set distances where various herbicide application techniques may be used near Silene spaldingii plants.	Ongoing Not Current	FY 2007		U.S. Forest Service, State Land Management Agencies, Weed Management Areas, U.S. Fish and Wildlife Service, Bureau of Land Management	Management	Labor type not yet selected	\$1K once every 5 years (seven times total) to revisit and adaptively manage distances based upon current information.

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Spalding's Catchfly (Silene spaldingii)	2	2.3.1.6.2		Ongoing Not Current	FY 2007		U.S. Forest Service, State Land Management Agencies, Weed Management Areas, U.S. Fish and Wildlife Service, Bureau of Land Management	Management	Labor type not yet selected	\$1K once every 5 years (seven times total) to revisit and adaptively manage distances based upon current information.
Spalding's Catchfly (Silene spaldingii)	2	2.3.1.6.3	Develop guidelines for the timing of herbicide applications.	Ongoing Not Current	FY 2007		U.S. Forest Service, Universities or Colleges, State Land Management Agencies, Weed Management Areas, U.S. Fish and Wildlife Service, Bureau of Land Management	Management	Labor type not yet selected	\$1K once every 5 years (seven times total) to revisit and adaptively manage distances based upon current information.

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Spalding's Catchfly (Silene spaldingii)		2.3.2.1	Incorporate fire management plans into habitat management plans for all Silene spaldingii populations identified as key conservation areas and other areas as needed.	Not Started			Washington State University, Confederated Salish and Koonetai Tribes, Nez Perce Tribe, U.S. Fish and Wildlife Service, Private landowners, Cottonwood Field Office, U.S. Bureau of Land Management, Craig Mountain Wildlife Management Area, Idaho Dept of Fish and Game, Dancing Prairie Preserve, The Nature Conservancy, Garden Creek Ranch, The Nature Conservancy, Lost Trail National Wildlife Refuge, Old Chief Joseph Gravesite, Nez Perce National Historical Park, Spokene District, U.S. Bureau of Land Management, Swanson Lakes Wildlife Area, Washington Department of Fish and Wildlife, Umatilla National Forest, Wallowa- Whitman National Forest, Wild Horse Island State Park, Montana Fish, Wildlife, and Parks, Zumwalt Prairie Preserve, The Nature Conservancy		Labor type not yet selected	Cost included in Action 2.2.
Spalding's Catchfly (Silene spaldingii)	2	2.3.2.2.1	Conduct surveys for Silene spaldingii before prescribed burns are implemented.	Partially Complete	FY 2007		All parties	Management: Habitat Maintenance and Manipulation	Labor type not yet selected	\$3K for six different surveys (1000 acres [405 hectares]) each year across all land managers.

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Spalding's Catchfly (Silene spaldingii)	3	2.3.2.2.2	Monitor the effects to Silene spaldingii and its habitat from all burns.	Ongoing Current	FY 2007		All parties	Research: Population Assessment	Labor type not yet selected	\$2K at five different burn sites each year across all land managers. In Idaho post-fire monitoring is occuring at the Craig Mt. site.
Spalding's Catchfly (Silene spaldingii)	2	2.3.2.2.3	Do not conduct prescribed burns where invasive nonnative plant infestations exist unless accompanied by an integrated pest management program and monitoring.	Unknown			All parties	Management: Habitat Maintenance and Manipulation	Labor type not yet selected	Cost included in Action 2.3.2.2.1.
Spalding's Catchfly (Silene spaldingii)	1	2.3.3	Protect Silene spaldingii sites from development on public and private lands.	Ongoing Current	FY 2007		All parties	Work type not yet selected	Labor type not yet selected	\$6K each year at rangewide locations.
Spalding's Catchfly (Silene spaldingii)	2	2.3.4	Monitor and manage livestock grazing and associated management activities to avoid impacts to Silene spaldingii and its habitat.	Ongoing Current	FY 2007		All parties	Management: Habitat Maintenance and Manipulation	Labor type not yet selected	\$0.5K for each of 27 different land managers and owners.
Spalding's Catchfly (Silene spaldingii)	2	2.3.5	Implement effective off-road vehicle use control measures.	Unknown			All parties	Management: Habitat Maintenance and Manipulation	Labor type not yet selected	\$0.5K for each of 10 different land managers and owners.
Spalding's Catchfly (Silene spaldingii)	3	2.3.6	Monitor and manage wildlife populations and associated management activities to avoid impacts to Silene spaldingii and its habitat.	Not Started			Tribal governments, U.S. Forest Service, State Land Management Agencies, Bureau of Land Management	Management: Depredation Control	Labor type not yet selected	\$0.5K annually for each of the four states where Silene spaldingii resides.

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Spalding's Catchfly (Silene spaldingii)	3	2.3.7	Avoid herbicide use not related to controlling invasive nonnative plant infestations specific to protecting Silene spaldingii and all insecticide use within a 1.6 kilometer (1 mile) radius of all S. spaldingii populations.	Current	FY 2007		All parties			Avoidance measure that should not have a cost.

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Spalding's Catchfly (Silene spaldingii)	3	2.4.1	Monitor Silene spaldingii populations at key conservation areas periodically to determine population trends.	Ongoing Current	FY 2007		Washington State University, Confederated Salish and Koonetai Tribes, Nez Perce Tribe, Cottonwood Field Office, U.S. Bureau of Land Management, Craig Mountain Wildlife Management Area, Idaho Dept of Fish and Game, Dancing Prairie Preserve, The Nature Conservancy, Garden Creek Ranch, The Nature Conservancy, Lost Trail National Wildlife Refuge, Old Chief Joseph Gravesite, Nez Perce National Historical Park, Spokene District, U.S. Bureau of Land Management, Swanson Lakes Wildlife Area, Washington Department of Fish and Wildlife, Umatilla National Forest, Wallowa- Whitman National Forest, Wild Horse Island State Park, Montana Fish, Wildlife, and Parks, Zumwalt Prairie Preserve, The Nature Conservancy	Research: Population Assessment	Contract	\$3K at each of the 27 key conservation areas plus an additional five potential key conservation areas five of every 10 years. \$3,000 in 2007 for technical assist in developing standardized monitoring protocol; however, a standardized protocol has not been developed. In Oregon: 1. ODA is currently developing a monitoring protocol at Wallowa Lake, 2. The Nature Conservancy monitors its population at Zumwalt Praire and 3. the Forest Service (Wallowa Whitman) monitors their populations. In Idaho: 1. the BLM (Cottonwood) conducts monitoring of their populations and 2. IDFG monitors 2 areas in the Cayon Grasslands (Craig Mt and Garden Creek) and 3. the Nez Perce NF monitors its Center Ridge population (2008-2010). In Montana: monitoring is being conducted at the Dancing Praire site.

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Spalding's Catchfly (Silene spaldingii)	3	2.4.2	Conduct demographic monitoring across the range of Silene spaldingii.	Ongoing Current	FY 2007		Washington State University, Confederated Salish and Koonetai Tribes, Nez Perce Tribe, Cottonwood Field Office, U.S. Bureau of Land Management, Craig Mountain Wildlife Management Area, Idaho Dept of Fish and Game, Dancing Prairie Preserve, The Nature Conservancy, Garden Creek Ranch, The Nature Conservancy, Lost Trail National Wildlife Refuge, Old Chief Joseph Gravesite, Nez Perce National Historical Park, Spokene District, U.S. Bureau of Land Management, Swanson Lakes Wildlife Area, Washington Department of Fish and Wildlife, Umatilla National Forest, Wallowa- Whitman National Forest, Wild Horse Island State Park, Montana Fish, Wildlife, and Parks, Zumwalt Prairie Preserve, The Nature Conservancy	Research: Demographic Studies	Contract	Duration at least 10 years; \$6K in each of the five physiographic regions in five of every 10 years. 2007 - Four sites in WA and MT for a cost of \$11,560. In Idaho two demograhic studies are currently being conducted on Craig Mt. During the 2011 field season, INHP completed the 10th year of a 10-year demographic monitoring project at one of the sites and the 8th year at the other. In Montana demographic monitoring is occuring at the Dancing Praire site

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Spalding's Catchfly (Silene spaldingii)	3	2.4.3	Monitor and evaluate the response of Silene spaldingii to fire and invasive nonnative plants.	Ongoing Current	FY 2007		All parties	Research: Habitat Status	Labor type not yet selected	Included in the costs listed in Action 2.4.1. In Idaho post-fire monitoring is ongoing at the Craig Mt. site. In Oregon, ODA has initiated a project to monitor the effects of weed control on SISP, work was conducted in 2010 and 2011. In addition, Umatilla NF was just funded \$5,000 through a FY 2011 Service First funding/in addition to the USFS funding for a project that will study Spalding's catchfly response to fire (June 1,
Spalding's Catchfly (Silene spaldingii)	3	2.4.4	Obtain permission from private landowners to conduct population trend monitoring for Silene spaldingii on private lands.	Not Started			U.S. Forest Service, State Heritage Programs, Universities or Colleges, Natural Resource Conservation Service, Private Landowners, U.S. Fish and Wildlife Service, Bureau of Land Management	Research: Population Assessment	Labor type not yet selected	2011 and December 31, 2017). Included in the costs listed in Action 2.4.1.
Spalding's Catchfly (Silene spaldingii)	3	2.4.5	Determine if sites with no plants have been extirpated.	Not Started			U.S. Forest Service, State Heritage Programs, Universities or Colleges, Natural Resource Conservation Service, Private Landowners, U.S. Fish and Wildlife Service, Bureau of Land Management	Research: Population Assessment	Labor type not yet selected	Eight sites in Washington that should be visited for 3 consecutive years at \$0.25K a site.

Species	Action Priority #	Action #	Action Description	Action Status	Est. Initiation Date	Est. Completion Date	Responsible Parties	Work Type	Labor Type	Action Comments
Spalding's Catchfly (Silene spaldingii)	3	2.5.1	Determine population viabilities for Silene spaldingii populations.	Not Started			U.S. Forest Service, Universities or Colleges, State Land Management Agencies, The Nature Conservancy, U.S. Fish and Wildlife Service, Bureau of Land Management	Research: Population Assessment	Labor type not yet selected	Some of the costs included in Action 2.4.2 (demography) and Action 2.5.9 (genetics).
Spalding's Catchfly (Silene spaldingii)	3	2.5.2.1	Utilize existing key conservation areas and identify new key conservation areas with good habitat where new populations should be developed or where existing populations could be supplemented.	Ongoing Current	FY 2007		All parties	Management: Habitat Maintenance and Manipulation	Labor type not yet selected	In 2010 survey efforts on the Flathead Indian Reservation (via a research permit from the Confederated Salish and Kootenai Tribe), resulted in the location of new occurrences of the species in the Sullivan Gulch area, approximately 7km from the nearest known occurrences in the Niarada area (over 500 plants). This population could represent the fourth key conservation area in the Intermontane Valleys physiographic region.
Spalding's Catchfly (Silene spaldingii)	1	2.5.2.2	Determine the best techniques for creating new populations or supplementing existing populations of Silene spaldingii.	Ongoing Current	FY 2007		Tribal governments, U.S. Forest Service, Department of Defense, Universities or Colleges, State Land Management Agencies, The Nature Conservancy, U.S. Fish and Wildlife Service, Bureau of Land Management	Research: Reintroduction	Contract	Provided funding for seed collection to Dave Skinner for a grow-out project in Idaho. Peter Lesica in Montana is also being funded to conduct a grow-out and outplanting study at the Dancing Praire site. Both are ongoing.

Species	Action Priority #	Action #	Action Description	Action Status	Est. Initiation Date	Est. Completion Date	Responsible Parties	Work Type	Labor Type	Action Comments
Spalding's Catchfly (Silene spaldingii)	1	2.5.2.3	Develop guidelines to ensure genetic conservation during supplementation, re-introduction, and introduction activities.	Partially Complete	FY 2007		Tribal governments, U.S. Forest Service, Department of Defense, Universities or Colleges, State Land Management Agencies, The Nature Conservancy, U.S. Fish and Wildlife Service, Bureau of Land Management	Research: Genetics	Labor type not yet selected	Will need to include a genetic analysis of the species range-wide.
Spalding's Catchfly (Silene spaldingii)	1	2.5.2.4	Determine the best techniques to restore Silene spaldingii habitat.	Ongoing Current	FY 2007		Tribal governments, U.S. Forest Service, Department of Defense, Universities or Colleges, State Land Management Agencies, The Nature Conservancy, U.S. Fish and Wildlife Service, Bureau of Land Management	Research: Habitat Requirements	Contract	Some of these techniques could be borrowed from research on other species. 2007-Controlled greenhouse and outplanting in MT - \$7,880.

Species	Action Priority #	Action #	Action Description	Action Status	Est. Initiation Date	Est. Completion Date	Responsible Parties	Work Type	Labor Type	Action Comments
Spalding's Catchfly (Silene spaldingii)	3	2.5.3	Conduct research essential to controlling and managing invasive nonnative plants within Silene spaldingii habitat.	Not Started			Tribal governments, U.S. Forest Service, Department of Defense , Universities or Colleges, State Land Management Agencies, The Nature Conservancy, U.S. Fish and Wildlife Service, Bureau of Land Management	Research: Habitat Requirements	Labor type not yet selected	Some of these techniques could be borrowed from research on other species. In addition, Oregon FWS provided 25,000 in recovery funding in 2010 to Oregon Department of Agriculture (ODA) to develop and implement monitoring of SISP at Wallowa Lake key conservation area and incorporated into the monitoring, in collaboration with Oregon Parks and Recreation District (OPRD) and the Service, is an evaluation of the relative effectiveness of habitat improvement treatments conducted by OPRD on the survival, flowering, and seedling recruitment of Spalding¿s catchfly, and habitat monitoring to assist with management and planning.

Species	Action Priority #	Action #	Action Description	Action Status	Est. Initiation Date	Est. Completion Date	Responsible Parties	Work Type	Labor Type	Action Comments
Spalding's Catchfly (Silene spaldingii)	3	2.5.4	Conduct research essential to managing livestock, wildlife, and insect herbivory at Silene spaldingii populations.	Ongoing Current			Tribal governments, U.S. Forest Service, Department of Defense , Universities or Colleges, State Land Management Agencies, Zumwalt Prairie Preserve, The Nature Conservancy, The Nature Conservancy, U.S. Fish and Wildlife Service, Bureau of Land Management	Research: Predation	Labor type not yet selected	In 2010 Zumwalt Research on Insect Pollinators and Predators of SISP was initiated (\$16,540 recovery funding to the Nature Conservancy in partnership with Oregon State University). This study is to evaluate the importance of pollinators and predators in recovering and maintaining a large SISP population in one key conservation area, TNC Zumwalt Prairie Preserve. Project is currently ongoing and will be completed by December 31, 2011.
Spalding's Catchfly (Silene spaldingii)	3	2.5.5	Conduct research to better determine the effects of fire on Silene spaldingii and identify when and where prescribed fire should occur, particularly outside of Montana.	Not Started			Tribal governments, U.S. Forest Service, Department of Defense , Universities or Colleges, State Land Management Agencies, The Nature Conservancy, U.S. Fish and Wildlife Service, Bureau of Land Management	Research: Habitat Requirements	Labor type not yet selected	

Species	Action Priority #	Action #	Action Description	Action Status	Est. Initiation Date	Est. Completion Date	Responsible Parties	Work Type	Labor Type	Action Comments
Spalding's Catchfly (Silene spaldingii)	3	2.5.6	Conduct further research regarding reproductive biology and essential pollinators for Silene spaldingii.	Ongoing Current			Tribal governments, U.S. Forest Service, Department of Defense , Universities or Colleges, State Land Management Agencies, Zumwalt Prairie Preserve, The Nature Conservancy, The Nature Conservancy, U.S. Fish and Wildlife Service, Bureau of Land Management	Research	Labor type not yet selected	In 2010 Zumwalt Research on Insect Pollinators and Predators of Spalding's catchfly was initiated (\$16,540 recovery funding to the Nature Conservancy (TNC) in partnership with Oregon State University) to evaluate the importance of pollinators and predators in recovering and maintaining the large Spalding's catchfly population in one key conservation area, TNC Zumwalt Prairie Preserve.
Spalding's Catchfly (Silene spaldingii)	3	2.5.7	Conduct research investigating seed dispersal mechanisms for Silene spaldingii.	Not Started			Tribal governments, U.S. Forest Service, Department of Defense, Universities or Colleges, State Land Management Agencies, The Nature Conservancy, U.S. Fish and Wildlife Service, Bureau of Land Management	Research	Labor type not yet selected	Washington Natural Heritage Program has been doing initial pollinator observation and collections for this species, as well as a literature review (2010).
Spalding's Catchfly (Silene spaldingii)	3	2.5.8	Conduct research on soil seed bank ecology including seed longevity, seed viability, and genetics.	Not Started			Tribal governments, U.S. Forest Service, Department of Defense , Universities or Colleges, State Land Management Agencies, The Nature Conservancy, U.S. Fish and Wildlife Service, Bureau of Land Management	Research	Labor type not yet selected	Total cost will depend on the length of the study.

Species	Action Priority #	Action #	Action Description	Action Status	Est. Initiation Date	Est. Completion Date	Responsible Parties	Work Type	Labor Type	Action Comments
Spalding's Catchfly (Silene spaldingii)	1	2.5.9	Conduct further genetic research including genetic diversity and gene flow across Silene spaldingiiýs range.	Partially Complete	FY 2007		Tribal governments, U.S. Forest Service, Department of Defense, Universities or Colleges, State Land Management Agencies, The Nature Conservancy, U.S. Fish and Wildlife Service, Bureau of Land Management	Research: Genetics	Contract	Should be concurrent with Action 2.5.1.
Spalding's Catchfly (Silene spaldingii)	3	2.6.1	Conduct surveys on Federal lands for Silene spaldingii.	Ongoing Current	FY 2007		U.S. Forest Service, Department of Defense , U.S. Fish and Wildlife Service, Bureau of Land Management	Research: Population Surveys	Labor type not yet selected	Costs here are for non-project related surveys, see also Actions 2.3.1.5 and 2.3.2.2.1. In Oregon: surveys and invasive plant inventories at Deadhorse Ridge (\$7,300) were conducted by the Wallowa-Whitman National Forest (W-WNF). The project is near an existing population at Clear Lake Ridge on TNC property. The project in 2009 found new plants on both on W-WNF lands and private land that is within a W-WNF allotment.
										In Oregon, in 2011, a new population was found - the first OR BLM population/occurren ce of this species - near the Grande Ronde River, near Flora (22 plants).

Spalding's Catchfly 3 2.6.2 Conduct surveys Ongoing Current FY 2007 Tribal Research: Labor type not ye	Costs here are for
(Silvers spaldings) Silvers spaldings Silvers spaldings Silvers spaldings Silvers	non-project related surveys, see also Actions 2.3.1.5 and 2.3.2.2.1. In Washington, WSU is conduting surveys for SISP at the Asotin Wildlife Management Area (2010). In Montana: In 2009 section 6 funds were used by the Montana Natural Heritage Program to survey areas in northwestern Montana on State Land at a site near Plains MT and one along Cow Creek near Libby. Neither appeared to contain suitable habitat. Also surveyed were areas in northwestern Montana on State Land at Black Lake wi the Tobacco Plains and 4 new EOs were located. Survey and monitoring efforts in 2010 focused on the Flathead Indian Reservation via a research permit from the Confederated Salish and Kootenai Tribe, and on re-visiting known occurrences on Reservation lands. These surveys resulted in the location of new occurrences of the species in the Sullivan Gulch area, approximately 7km from the nearest known occurrences in the Niarada area (over

Species	Action Priority #	Action #	Action Description	Action Status	Est. Initiation Date	Est. Completion Date	Responsible Parties	Work Type	Labor Type	Action Comments
Spalding's Catchfly (Silene spaldingii)	3	2.6.3	Obtain permission from private landowners to conduct surveys for Silene spaldingii on private lands.	Not Started			State Heritage Programs, Natural Resource Conservation Service, Private Landowners, U.S. Fish and Wildlife Service	Research: Population Surveys	Labor type not yet selected	In Idaho, as part of the Latah Co. Palouse Praire Remnant project, surveys are being conducted on private land for SISP. 2011 represents the the fourth and final year of this project. The next step is to work w willing private landowners to conserve SISP or introduce SISP onto their property. In addition, from 2006-2008 > 3000 sites across > 400 hectares of bunchgrass prairie habitat were systematically surveyed on the Zumwalt Prairie Preserve in Idaho. TNC also surveyed 17 ha of its Clear Lake Preserve in 2009. In Montana, survey activity is occurring (2010) on the Dancing Prairie Preserve (2011 results not yet available). In Oregon, in association with the Oregon Department of Agriculture (ODA) monitoring of Spalding¿s catchfly populations at Wallowa Lake key conservation area, surveys on private land near Wallowa Lake will be conducted in 2011.
Spalding's Catchfly (Silene spaldingii)	1	2.6.4	Protect newly discovered Silene spaldingii populations.	Ongoing Current	FY 2007		All parties	Other	Labor type not yet selected	Costs included in other actions listed.

Species	Action Priority #	Action #	Action Description	Action Status	Est. Initiation Date	Est. Completion Date	Responsible Parties	Work Type	Labor Type	Action Comments
Spalding's Catchfly (Silene spaldingii)	3	2.7.1	Support conservation actions on lands owned by The Nature Conservancy.	Ongoing Current	FY 2007		The Nature Conservancy, U.S. Fish and Wildlife Service	Management: Habitat Maintenance and Manipulation	Labor type not yet selected	Costs included in other actions listed.
Spalding's Catchfly (Silene spaldingii)	3	2.7.2	Support conservation activities on other private lands.	Not Started			All parties	Management: Habitat Maintenance and Manipulation	Labor type not yet selected	Costs included in other actions listed.
Spalding's Catchfly (Silene spaldingii)	3	2.7.3	Conduct outreach and awareness efforts with the public regarding Silene spaldingii's plight and its conservation.	Ongoing Current	FY 2008		All parties	Other: Information and Education	Labor type not yet selected	\$2K annually in each of the four states where Silene spaldingii resides.
Spalding's Catchfly (Silene spaldingii)	3	2.8	Pursue land and species designations that will help facilitate conservation of Silene spaldingii.	Not Started			All parties	Management	Labor type not yet selected	
Spalding's Catchfly (Silene spaldingii)	1	2.9	Establish propagule banks, including a long-term seed storage facility for Silene spaldingii.	Ongoing Not Current	FY 2007		Berry Botanic Garden, All parties	Management: Propagation	Labor type not yet selected	
Spalding's Catchfly (Silene spaldingii)	3	3	Develop a post- delisting monitoring plan.	Not Started			All parties, U.S. Fish and Wildlife Service	Research: Population Assessment	Labor type not yet selected	To be developed within 2 years of anticipated delisting.